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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/682,089

10/10/2003

David Steer

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EXAMINER

PEZZLO, JOHN

ART UNIT

PAPER NUMBER

2619

MAIL DATE

DELIVERY MODE

02/20/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/682,089	Applicant(s) STEER ET AL.	
	Examiner John Pezzlo	Art Unit 2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 44-48 is/are allowed.
- 6) ☒ Claim(s) 1-10, 28-30, 34, 35, 40, 41, 43 and 49 is/are rejected.
- 7) ☒ Claim(s) 11-27, 31-33, 36-39, 42 and 50 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>9/10/04, 5/18/04</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: Pages 18 and 19 of the specification refer to US Patent applications without noting the application number, the application number needs to be stated. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

I. Claims 1-10, 28-30, 34, 35, 40, 41, 43, and 49 are rejected under 35 U.S.C. 102(e) as being anticipated by Walton et al. (US 2004/0082356 A1) hereinafter Walton.

1. Regarding claims 1 and 41 – Walton discloses monitoring a plurality of transit links between the network node and a respective plurality of neighbouring network nodes for a

communications control signal from any of the plurality of neighbouring network nodes, receiving the communications control signal from one of the plurality of neighbouring network nodes, selecting one of the plurality of transit links between the network node and the one of the plurality of neighbouring network nodes, and exchanging data between the network node and the one of the plurality of neighbouring network nodes via the one of the plurality of transit links, refer to Figures 1, 2, 5B, 5C, 12A, 12B, and 13 and paragraphs [0012], [0013], [0015], [0042], [0052], [0056], [0062], [0073], [0074], Table 3, [0079], Table 4, [0086], [0087], [0117], [0118], [0145], [0146], [0154], Table 17, and [0615] to [0657].

2. Regarding claim 2 – Walton discloses reverting to monitoring the plurality of transit links upon completion of the exchanging, refer to Figures 12, 12B, and 13 and paragraphs [0615] to [0657].

3. Regarding claim 3 – Walton discloses operating the network node in a neighbourhood mode to listen for the communications control signal from any of the plurality of neighbouring network nodes, and exchanging comprises operating the network node in a traffic mode, refer to Figures 1, 2, 5B, 5C, 12A, 12B, and 13 and paragraphs [0012], [0013], [0015], [0042], [0052], [0056], [0062], [0073], [0074], Table 3, [0079], Table 4, [0086], [0087], [0117], [0118], [0145], [0146], [0154], Table 17, and [0615] to [0657].

4. Regarding claim 4 – Walton discloses operating the network node in a neighbourhood mode comprises operating a first antenna at the network node, and wherein operating the

network node in a traffic mode comprises operating a second antenna at the network node, refer to Figure 1, and paragraphs [0013], [0052] to [0056], [0059], [0062], Table 7, [0180], [0249], Table 29, and [0250].

5. Regarding claim 5 – Walton discloses operating a plurality of antenna elements of an antenna system at the network node, and wherein operating the network node in a traffic mode comprises operating one of the plurality of antenna elements in the antenna system at the network node, refer to Figure 1, and paragraphs [0013], [0052] to [0056], [0059], [0062], Table 7, [0180], [0249], Table 29, and [0250].

6. Regarding claim 6 – Walton discloses the communications control signal is a "request-to-send" packet, refer to Figures 12, 12B, and 13 and paragraphs [0615] to [0657].

7. Regarding claim 7 – Walton discloses the data comprises a "clear-to-send" packet, refer to Figures 12, 12B, and 13 and paragraphs [0615] to [0657].

8. Regarding claim 8 – Walton discloses transitioning to the traffic mode when the network node has data to send, refer to Figures 12, 12B, and 13 and paragraphs [0615] to [0657].

9. Regarding claim 9 – Walton discloses performing access traffic functionality to send data to and to receive data from wireless terminals, refer to Figures 12, 12B, and 13 and paragraphs [0615] to [0657].

10. Regarding claim 10 – Walton discloses performing access traffic functionality to send data to and to receive data from wireless terminals; and transitioning to the traffic mode when the network node has data, received from a neighbouring network node or a wireless terminal, to send to another network node, refer to Figures 12, 12B, and 13 and paragraphs [0615] to [0657].

11. Regarding claim 28 – Walton discloses a transit link antenna system, a transit radio connected to the transit link antenna system and configured to communicate with neighbouring network nodes over transit links using the transit link antenna system, and a communications controller configured to operate the network node in a plurality of operating modes, comprising a neighbourhood mode to listen for communications control signals from any of the neighbouring network nodes, and a traffic mode to select one of the transit links and to exchange data with one of the neighbouring network nodes over the one of the transit links in response to a communications control signal from the one of the neighbouring network nodes, refer to Figures 1, 2, 5B, 5C, 12A, 12B, and 13 and paragraphs [0012], [0013], [0015], [0042], [0052], [0056], [0062], [0073], [0074], Table 3, [0079], Table 4, [0086], [0087], [0117], [0118}, [0145], [0146], [0154], Table 17, and [0615] to [0657].

12. Regarding claim 29 – Walton discloses operate the network node in the traffic mode when the network node has data to send to any of the neighbouring network nodes, refer to Figures 12, 12B, and 13 and paragraphs [0615] to [0657].

13. Regarding claim 30 – Walton discloses a neighbourhood mode antenna and a traffic mode antenna, each having a respective defined beam pattern, Figure 1, and paragraphs [0013], [0052] to [0056], [0059], [0062], Table 7, [0180], [0249], Table 29, and [0250].

14. Regarding claim 34 – Walton discloses an array antenna having a plurality of directional antenna elements, each of the transit links being associated with one of the plurality of directional antenna elements, and wherein the communications controller operates more than one of the plurality of directional antenna elements in the neighbourhood mode and selects one of the plurality of directional antenna elements in the traffic mode, refer to Figure 1, and paragraphs [0013], [0052] to [0056], [0059], [0062], Table 7, [0180], [0249], Table 29, and [0250].

15. Regarding claim 35 – Walton discloses an array antenna having a plurality of directional antenna elements, each of the transit links being associated with phase shifts applied to excitation signals of the directional antenna elements to steer a peak in a gain pattern of the array antenna toward a respective one of the neighbouring network nodes in the traffic mode, refer to Figure 1, and paragraphs [0013], [0052] to [0056], [0059], [0062], Table 7, [0180], [0249], Table 29, and [0250].

16. Regarding claim 40 – Walton discloses a plurality of network nodes, refer to Figures 12, 12B, and 13 and paragraphs [0615] to [0657].

17. Regarding claim 43 – Walton discloses selects the one of the plurality of transit links based on an identification of the one of the plurality of neighbouring network nodes in the communications control signal and a lookup table mapping the plurality of transit links to the plurality of neighbouring network nodes, refer to Figures 12, 12B, and 13 and paragraphs [0615] to [0657].

18. Regarding claim 49 – Walton discloses a respective access radio and omni-directional access antenna providing communications services to mobile terminals, a respective transit radio and transit antenna system providing communications with other wireless network nodes, the transit antenna system having a plurality of antenna segments each producing a respective beam such that a 360 degree coverage is provided, a respective communications controller controlling communications between pairs of mobile terminals through the access radio and the access antenna system, controlling communications between a mobile station and another wireless network node through the access radio, the access antenna system, the transit radio, and a segment of the transit antenna system, and controlling communications from a first other wireless network node to a second other wireless network node through the transit radio and pairs of the segments of the transit antenna system, refer to Figures 1, 2, 5B, 5C, 12A, 12B, and 13 and paragraphs [0012], [0013], [0015], [0042], [0052], [0056], [0062], [0073], [0074], Table 3, [0079], Table 4, [0086], [0087], [0117], [0118}, [0145], [0146], [0154], Table 17, and [0615] to [0657].

Allowable Subject Matter

Claims 11-27, 31-33, 36-39, 42, and 50 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 44-48 are allowable over the prior art of record.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. Kuhl et al. (US 2005/0041613 A1) discloses a method of transmitting time-critical scheduling information between single network devices in a wireless network using slotted point-to-point links.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Pezzlo whose telephone number is (571) 272-3090. The examiner can normally be reached on Monday to Friday from 8:30 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel, can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

Any response to this action should be mailed to:

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Washington, D.C.

or faxed to:

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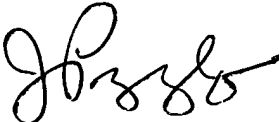
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John Pezzlo

14 February 2008


JOHN PEZZLO
PRIMARY EXAMINER